M e m o r a n d u m

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Date: May 29, 2003

Subject: Area-Wide Soil Contamination Draft Summary of Public Comments Submitted

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Introduction

In April 2003, a project packet summarizing the Area-Wide Soil Contamination Project Task Force preliminary recommendations was developed to provide the public with an opportunity to review and comment. The packet provided an overview of the Area Wide Soil Contamination project and summarized the Task Force preliminary recommendations associated with: Nature and Extent of Area-Wide Soil Contamination; Broad-Based Education and Awareness Building; Child Use Areas; Residential Areas; Vacant Land; Commercial-Use Areas, Real Estate Disclosure; the Model Toxics Control Act (MTCA); Ecological Risk; and Additional Information. It included a comment questionnaire form that individuals could use to submit comments. The document was also posted on the project web page and the questionnaire was available on the project web page in an online response format. The document was distributed in early May 2003 and comments were due May 22, 2003. In addition, newspaper ads were placed in several newspapers in eastern and western Washington and a news release was distributed that announced the availability of the Task Force preliminary recommendations for review and comment.

Also in May 2003, five focus group meetings were held in Spokane, Wenatchee, Seattle and Yakima, to discuss the Task Force preliminary recommendations and gather feedback on an interest-based stakeholder level. A summary of the comments provided at these meetings were provided in a separate memorandum.

This memorandum provides a summary of the individual comments provided, which included comments mailed or faxed using the project comment questionnaire, comments provided on the web page through the interactive online comment questionnaire, and comments emailed or provided in letter format. Approximately 17 comment questionnaires were submitted along with and 8 additional emails and letters submitted to Ecology with comments. The actual comment questionnaire forms and emails and letters submitted are available upon request through Dawn Hooper at the Department of Ecology.

Summary of Comments

The majority of the respondents that filled out the comment questionnaire indicated that 1) they knew a lot or some about the project before reviewing the May 2003 project packet and described a variety of experience with the area-wide soil contamination issue (e.g., ASARCO Plume in southwest King County, agricultural uses in Eastern Washington), and 2) they felt they had an adequate understanding of what the project entails and the problems and issues associated with area-wide soil contamination after reviewing the May 2003 project packet. Letters and email responses were provided by: Senator Karen Keiser; ASARCO; Port of Seattle; City of Tacoma; Yakima Health District; Regional Commission on Airport

Affairs; Washington State Science Advisory Board; Xander and Associates; and L.B. Sandy Rock, MD, MPH. Several common themes emerged in the comments submitted. The following sections provide an overview of the comments provided and a summary of the comments relating to the specific Task Force preliminary recommendations.

Overall Reactions and Viewpoints

The individual comments received were extremely varied. Many of the respondents indicated strong support for the Task Force approach of addressing area-wide soil contamination that addresses potential exposure and using reasonable approaches commensurate with the perceived risks. Some expressed concerns about both the health and environmental impacts from area-wide soil contamination and issues that the Task Force has not addressed (e.g., surface water and groundwater impacts, importation of contaminated fill material). While others indicated that they do not agree that there is a health risk associated with area-wide soil contamination, that the health risk has not been demonstrated, and that they do not agree that response measures are needed.

Respondents had several suggestions on additional information they believe would help improve the understanding of the issue. The suggestions included:

- Additional information is needed regarding the symptoms of lead arsenate exposure, impacts on ecosystems, implications of large scale earth moving activities in and around residential areas (e.g., SeaTac Airport, State Route 509, conversion of orchards), testing and data results from former orchards, treated wood as a source of high level arsenic contamination, .
- A long term study and plan for how to address the issue in the future is needed. Concern was raised regarding whether new relevant studies and risk models were used to set the threshold for Task Force recommendations as well as the state standard of 20 ppm arsenic in soils. The anthropogenic sources of arsenic and other metals, separate from those attributable to former smelter operations, are present in the environment and should be considered. Sources for arsenic and lead that are not associated with the Tacoma Smelter Site are provided in Asarco's May 22, 2003 comment letter.
- The Task Force should discuss and develop recommendations regarding specific large scale earth moving projects that are ongoing or scheduled to commence shortly to ensure that specific protective requirements are incorporated into these projects (e.g., SeaTac Airport and SR 520).
- Resource information is needed for the medical community on health risks and symptoms, and for the public on why kids are more sensitive and what the biological effects of lead and arsenic are.
- More information is needed on what "low-to-moderate" levels of soil contamination are, what levels fall into the "area-wide" designation, and what these levels mean. Quantitative definitions or examples of various scenarios would greatly improve understanding.
- Need a more accurate determination of acres affected by pesticide use to give a better estimation of risks and costs associated with contamination in orchards and former orchards.
- Need quantitative information to clarify how much land is affected. Should describe how much land is thought to exceed Federal EPA clean-up levels, which are set considerably higher than the analogous MTCA levels.

Nature and Extent of Area-Wide Soil Contamination and Maps and Accompanying Information

The majority of the comment questionnaire respondents indicated that they understood and supported Task Force recommendations relating to mapping and additional research on roadside lead contamination (14 out of 16 individuals that filled out the comment questionnaire responded yes or somewhat to the

question). A variety of comments and suggestions were provided in both the comment questionnaires and letters and emails submitted, including:

- In addition to supporting additional research on roadside lead, several respondents indicated that other contaminant sources are also a concern and should be considered, such as water borne (e.g., stormwater runoff) contaminant plumes, groundwater impacts, additional non-point sources of lead, and rail transportation corridors to and from smelters, and that this project was a good starting point, but not a full assessment.
- Several respondents indicated that the project would potentially impact property values and development for no proven gain, that they were hesitant to spend tax dollars on an issue with no real health impact, and that roadside lead characterization should be given a low priority (except in areas where risk of exposure to children is high) and be restricted to historically high traffic areas and former manufacturing and distribution sites.

Suggestions and comments on the maps included:

- Tier I and II maps are a good idea and should be implemented. More information on the amount of area impacted by specific smelter plumes should be included (including acres, wind roses, concentration contours). Develop a flowchart for decision-making regarding potentially impacted smelter sites similar to the example flowchart for lead arsenate contamination shown in Figure 2 of the draft report (an example flowchart was provided by the Port of Seattle).
- Include brief descriptions or summaries of ongoing and completed remediation work in the smelter vicinities on or within the Tier 2 map areas, distinguish smelter source areas from adjacent (downwind) area-wide impacted areas.
- Harbor Island is different than other Western WA smelter sites. Its historical operation consisted of secondary lead smelting and did not have the same scope of operation or airborne releases as primary smelters. Therefore, it does not fit the model of an "area-wide" impact. Harbor Island should be removed from the Tier 1 map or explanatory text describing how it is different from other sites should be provided.
- The mapping seems to avoid providing data points with actual data on metals concentrations. This limits the ability of the public to make rational decisions and use such information in land use decisions. More precise maps that show actual contamination and specific information should be developed.
- Maps of areas of likely contamination should be presented based on the same standards across the state. To suggest that everything within some of the large mapped areas is "likely" contaminated paints an unrealistic picture (e.g., ASARCO's Tacoma plume).
- There is a lack of geographical information in the recommendations. Local health authorities, residents and health practitioners need specific geographical data to make reasonable judgments about risk and protective measures.
- Leaded gasoline use and concerns should be added to the maps in the future.
- The use of 1947 aerial maps to identify orchard areas is too general.

Broad-Based Education and Awareness Building Recommendations

The majority of the questionnaire respondents indicated that the felt the Task Force recommendations were appropriate and adequate to achieve the education and awareness-building goal and increase public understanding (11 of 14 responded yes or somewhat to the question). Most respondents supported the broad-based, step-wise approach recommended by the Task Force. Several suggestions regarding education and awareness were provided in both the comment questionnaires and letters and emails submitted, including:

- Several groups should be specifically targeted in education and awareness efforts including: local medical providers and medics, medical researchers, local health authorities and workers who may be at risk from work activity in contaminated areas.
- More specific information is needed about the health problems associated with lead and arsenic soil contamination, the underlying biology of soil contamination and why children in particular are affected, and nature of contaminants (e.g., will the contaminates naturally decay). The Task Force should describe their assessment of health risk, based on the best and most recent studies, and should list available treatment options. Include specific scenarios that describe the likely level of contamination and/or exposure from various activities (e.g., can someone working in contaminated soil bring it into the home, and if so, how do you remove the contamination from the home?).
- The state should take a large part in the awareness building process and information sharing; existing efforts of other agencies should not be duplicated.
- Identify who will be responsible for getting information to the public, how much funding is needed, and where the funding will come from.
- All of the information and studies considered by the Task Force when making their recommendations should be made available to the public.
- Measures taken should be commensurate with the perceived level of risk.

Child-Use Areas Recommendations

The comment questionnaire divided the topic of Child-Use Areas into two parts; the effectiveness of Task Force recommendations and the issue of developing a voluntary certification program for childcare providers.

The majority of comment questionnaire respondents agreed that the Task Force recommendations are appropriate and adequately to effectively address the needs in child-use areas (10 out of 15 responded yes to this question). The importance of focusing on these areas to reduce risk to children was widely accepted by the respondents. Comments and suggestions regarding Child-Use Areas recommendations included:

- Several respondents expressed a high level of concern about potential health impacts and provided suggestions such as: blood lead testing of children living in areas known to have levels of lead soil contamination should be increased; plant material in high contamination areas should be sampled because children may eat this material; arsenic treated wood play structures should be banned and associated playgrounds should be closed or remediated; Task Force should consider lead paint as another source of contamination;
- A couple of respondents indicated that the concern about potential health impacts was not as great and explained that: the state Department of Health has been conducting surveillance of blood lead levels, particularly in children, for years, and that their findings do not support the premise that soil is a source of blood lead; and the recommendations were not based on “real life classification data”.
- It was also suggested that supporting information or data is needed to identify what conditions and processes may result in exposure to children, what pathways result in exposure and at what rate (e.g., inhalation; ingestion, dermal exposure) -- this information would help evaluate level of risk reduction expected from the Task Force recommendations.

The majority of the comment questionnaire respondents also supported including a voluntary certification program for daycares as a Task Force recommendation (10 out of 15 responded yes to this question). Suggestions and comments included:

- Several of the respondents indicated that they support voluntary certification for childcare facilities because childcare program certification could be an excellent way to reach parents and children about the area-wide soil contamination issue;
- Several of the respondents indicated that they do **not** support voluntary certification for childcare facilities because it may not achieve adequate protection. They suggested that soil contamination education as a part of licensing, rather than voluntary certification;
- Additional suggestions included: Washington has state laws that address mandatory notification on pesticide applications for schools and licensed daycares, can similar requirements be made for lead and arsenic reporting and remediation?; determination is needed regarding who will administer and enforce certification; clarify if childcare providers need to have their soil tested and be certified as "contamination free"; and childcare programs should be declared protection zones in regard to any nearby disturbance of soil in contaminated areas.
- Concern was expressed that childcares may be unwilling to participate until it is clear what negative impact this may have on their business -- childcare programs may be identified as unsafe by parents, or close down if unable to afford certification requirements.

Residential Areas Recommendations

The majority of comment questionnaire respondents believed the responses recommended by the Task Force are appropriate and adequate to address the needs in residential areas (11 out of 15 responded yes or somewhat to this question). Several respondents supported full disclosure of soil contamination in property transactions but were concerned about the cost to property owners of testing and clean-up. Respondents were also concerned about creating unnecessary distress to residential property owners. Additional comments and suggestions included:

- Residential areas include children and should be a designated protection zones with regard to full disclosure for earth moving or fill activities and air monitoring requirements for projects that may impact residential areas.
- The current use of treated wood must be dealt with.
- More specific information should be provided for gardeners. What is protective clothing? What type of gloves should be worn? Can protective clothing be reused? Are there food plants that can be grown in contaminated soil that are safe (low risk) to eat?

Commercial-Use and Vacant Land Recommendations

Approximately half of the comment questionnaire respondents indicated that they viewed the Task Force recommended responses relating to commercial-use areas and vacant land as appropriate and adequate (7 out of 13 individuals that filled out the comment questionnaire responded yes or somewhat to the question, 6 responded no). A variety of comments and suggestions were provided in both the comment questionnaires and letters and emails submitted, including:

- Several respondents indicated support for the recommendations and indicated that no additional recommendations for commercial-use areas seem appropriate. Support for an incentive-based system; emphasis on low-cost, practical solutions using carrot not stick approach; and no need for undue burden for commercial and industrial properties was expressed.

- Several of the respondents indicated that issues and concerns warrant additional responses in these areas. Concerns included: lead paint used on tanks, equipment, and structures.
- Concerns regarding vacant land not always being vacant and commercial land being redeveloped were raised. It was suggested that a notice on the title should indicate steps to be taken to address contamination when property developed or redeveloped. It was also suggested that language regarding institutional controls and restrictive covenants (as in MTCA) should be required.
- Concerns were raised about large earth moving activities related to commercial activities being a potentially major source of exposure, and that it can end up in residential areas. One respondent indicated that they felt area-wide contamination levels clearly indicate that any site disturbance activities should be carried out under the same constraints as work on any other contaminated or hazardous waste site. Another respondent referenced a Bunker Hill study.
- Additional suggestions included the need for precautionary measures to be taken during the construction phase of development; need for controls during removal/movement of trees (e.g., former orchards) and debris to prevent wind blown dust migrating to other properties; need for organic site debris guidance to prevent area-wide soil contamination from clearing of secondary growth or former orchard trees from getting mulched and mixed with other recyclable materials; and need for more flexibility for when developers should be required to sample soil (e.g., may not be appropriate for large projects that will subsequently be modified and not represent the same conditions).
- One respondent commented that they felt there is no need for vacant land recommendations and another respondent indicated that it is not necessary to revise the SEPA Checklist since it already has a question under the environmental health category that can be used to address this concern.

Real Estate Disclosure

The majority of the comment questionnaire respondents indicated that they had suggestions or concerns relating to real estate disclosure that they want the Task Force to consider as they finalize their recommendations (10 out of 15 individuals that filled out the comment questionnaire responded yes to the question). A variety of comments and suggestions were provided in both the comment questionnaires and letters and emails submitted, including:

- Most of the respondents indicated that they think disclosure should be required. Comments supporting this requirement included: especially for vacant land/commercial use areas; include a specific question regarding whether the property was historically an apple or pear orchard; full disclosure should be provided;
- A couple of the respondents indicated that they do **not** think real estate disclosure should be required. Comments and concerns included: there are already too many real estate disclosures that discourage real estate purchases; chilling effects on sales create concerns for parties for no reason;
- Additional comments included: disclosures should be general to the area, not applied to individual properties; all properties should be disclosed as having contamination so consumers have no choice; and if property is disturbed in an area-wide contaminated zone, knowledge of the exact nature and extent of that contamination prior to any permits being issued is a fundamental public right that overrides any right to privacy, this disclosure should be included in the SEPA and permitting public process.
- One residential respondent had lead and arsenic contaminated soil and encouraged the Task Force to continue working on this issue with the goal of making mandatory pre-purchase assessment and disclosure as painless as possible (understanding both the need for disclosure and the concern for property value). They indicated that some kind of financial assistance to remediate the

contamination would encourage residential property owners to sample and take steps to minimize the risk.

Model Toxics Control Act (MTCA) Recommendations

Over half of the comment questionnaire respondents indicated that they believed or somewhat believed that the Task Force MTCA recommendations are appropriate and adequate to identify locations where alternative approaches should apply, encourage individual actions to implement the Task Force recommendations, provide liability protection and property status recognition, and identify circumstances where the traditional MTCA process should apply (4 responded yes and 6 responded somewhat, out of 14 responses). A variety of comments and suggestions were provided in both the comment questionnaires and letters and emails submitted, including:

- Several of the respondents provided written comments that indicated that they do **not** support the MTCA recommendations for the following types of reasons: contaminated properties should be clearly identified and the owners informed, if cleanup levels are not appropriate they should be changed; need more specificity on who will give technical and financial support; if property gets used, value and development would be impacted; and zone identification will further scare the population, depress the economy, and not solve the problem, cost effective abatement pilot projects should be done.
- Several respondents provided written comments that indicated that they support the MTCA Task Force recommendations for the following types of reasons and conditioned on the following types of suggestions: firmly support the incentive-based system recommendation and supporting individuals who choose to take action; provide workable and realistic solutions; and work with state Attorney General's office to devise a more reliable and workable means of providing and supporting relief for both small and large property owners.
- Additional comments included: any alternative to the traditional MTCA process should be limited to property contaminated ONLY with area-wide contaminants; the recommendations appear to represent a significant action that should require rule making that includes evaluation of related impacts and associated public review and comment; pesticide mix/load areas with potentially higher levels of contamination should be identified where possible; the recommendations are not developed enough to thoroughly evaluate the potential impacts and outcomes; make sure enforcement forbearance or other appropriate relief measures are equally applied, regardless of the size or nature of the property owner; self-certification recommendation appears workable and is preferred over traditional Ecology site review, it should be available for residential and commercial/industrial property owners; any enforcement forbearance policy should apply only to landowners who did not contribute in any way to the contamination on their property, do not unfairly shift costs onto the state or onto a very small set of private entities (e.g., pesticide manufacturers and smelter operators).
- Consider viewing low and moderate level contamination in smelter-impacted areas as "area background" as defined in MTCA – "concentrations of hazardous substances that are consistently present in the environment in the vicinity of a site which are the result of human activities unrelated to releases from that site" – rather than being compared to "Natural Background" (see Port of Seattle comments for more information).

Ecological Risk Recommendations

The majority of the comment questionnaire respondents indicated that they had suggestions or concerns relating to ecological risk that they would like the Task Force to consider as they finalize their recommendations (11 out of 17 responded yes on the comment questionnaire). A variety of comments

and suggestions were provided in both the comment questionnaires and letters and emails submitted, including:

- The majority of respondents indicated support for studying and addressing ecological risk for the following types of reasons: may be worth pursuing from standpoint of bioaccumulation; consider contaminated sediments impact to the benthic community and through the food chain; all parts of the ecosystem need to be considered in relation to one another along with the potential synergy of toxins; animals or plants with elevated lead or arsenic levels pass it along and redistribute it in the environment; and liable parties should provide money to fund eco-risk evaluation by the Department of Ecology.
- Only a couple respondents indicated that they did **not** think evaluating ecological risk would provide valuable information that would result in effective actions, associated comments included: other than testing plants for metals content, don't see the use in spending too much time on ecological risk since there is nothing that could really be done about it; protective measures will be similar to those to protect human health, it is difficult to study due to spatial distribution, and Ecology's resources are limited.
- Additional comments included: cannot judge risk; before recommending any actions, confirm there is an ecological risk; measure risk only as outcome of exposure, not based on levels in the air or water; good to see that some literature searches on the ecological risk have been done, are there any existing federal or state recommendations on ecological risk; and the final report should summarize the research so readers can make up their own minds.

Recommendations for Additional Information

All questionnaire respondents supported Task Force recommendations for additional research and data gathering relating to arsenic and lead (16 out of 16 responded yes or somewhat to this question). Support was expressed for studies on both human health impacts and soil contamination levels to establish a uniform or baseline level of data. Concern about children and their exposure to lead was emphasized. Additional comments and suggestions included:

- Start testing with pilot programs in areas considered to be at highest risk for contamination, such as smelter areas.
- In areas with known toxics like arsenic, lead and cadmium, access and activities should be limited until information addressing the impacts of those activities has been supplied or developed.
- Rather than delay needed response actions to address health concerns, the Task Force should rely on studies that have already been conducted, even if the studies have not been conducted in Washington. If the Task Force believes that existing studies leave gaps in our knowledge that will hinder our ability to remediate the area-wide contamination, then the issue should be referred to experts for guidance and the final decision should be subject to public review.
- Commercial and governmental stakeholders would benefit from expanded recommendations that include further work on the following:
    - Procedures for identifying or certifying clean fill soil sources;
    - Guidance for contractors, disposal sites, etc. accepting excess soil from construction sites within identified area-wide boundaries; and
    - Ecology's completion of guidance for managing "gray-area" soils; including soils containing arsenic or lead below dangerous or hazardous waste concentrations.

Additional Comments and Suggestions

Additional comments and suggestions were provided that were not directly associated with the Area-Wide Soil Contamination Task Force preliminary recommendations. These comments included:

- Concerns were again raised regarding the need for the project, including:
  - Cost to implement a major education campaign in today's fiscally-constrained environment with so many more threatening dangers (e.g., war on terrorism);
  - Complete studies and show that health risks warrant active measures to minimize harm;
  - Base project on 2003 science, not beliefs and considerations of 1900's;
  - The Department of Health should be allowed to complete it's assessment before the Department of Ecology begins recommending control efforts;
  - Local government does not have the resources to become another source for information for a state agency, especially in an area of very questionable public health.
- In contrast, several comments were provided in support of the Task Force recommendations and implementation of responses to the problem of area-wide soil contamination, including:
  - Encourage funding to SOLVE the problem;
  - Support Task Force recommendations to the Department of Health and request that they become more involved in the area-wide soil contamination project.
- Additional suggestions to the Task Force included:
  - Should recommend follow-on work by Ecology and others to address gaps (e.g., certified sources for clean fill) and consider recommendations recently made by the Washington Competitiveness Council, http://www.governor.wa.gov/wcc/wcc.htm (examples provided by Port of Seattle);
  - Should not provide any recommendations regarding surface water runoff from construction sites, there are already stringent measures in place that adequately address these concerns;
  - Agree with Task Force that groundwater contamination is not likely an issue for properties affected by area-wide soil contamination;
  - Should be cautious when recommending actions or restrictions to areas that are "likely" to be contaminated, a more cost effective approach, and less likely to cause alarm might be to apply these measures only when/where the levels of arsenic and lead have been identified as being elevated.
- The Washington State Science Advisory Board relayed their interest in reviewing risk assessments done to date and helping the agencies identify what concentrations should be addressed through interim actions.
- It was relayed that child-care providers have voiced concerns over necessity of soil sampling, and associated fiscal impact, when they are required to utilize ground cover in outdoor play areas.
- It was suggested that risk communication measures be used to inform the public and allow them to use their best judgment about the exposure situation being addressed.
- Concern was raised regarding future litigation associated with the Task Force report, and that only some of the potential sources for the low-level metal concentrations have been identified and will be targeted for litigation.
- Concern that the draft report may understate the costs of implementing its recommendations was raised (see Asarco letter).
- A variety of concerns regarding the process or project packet that explained the preliminary recommendations were raised, including:
  - Why wasn't cadmium included in work?;
  - Task Force members should have been listed in packet;

- The make-up of the Task Force is disproportionate to the location of potentially affected areas, too few members have connections to the most affected areas in Western Washington;
- Questions regarding how the project was funded and how much money has been spent raised;
- What previous studies were reviewed and what weight was given to each?;
- The Task Force is encouraged to prepare a written responsiveness summary to address comments received through the public process; and
- The greater Tacoma community has not being asked to comment, even though it is the largest geographical area impacted.